


County of Loudoun
Office of Transportation Services
MEMORANDUM

DATE: February 9, 2010

TO: Judi Birkitt, Project Manager, Department of Planning

FROM: George Phillips, Senior Transportation Planner 

SUBJECT: ZMAP 2009-0005, SPEX 2009-0009 & CMPT 2009-0001-
Green Energy Partners/Stonewall (GEP/S) Hybrid Energy Park
Third Referral

Background

In response to second Office of Transportation (OTS) referral comments dated November 20, 2009, the Applicant has provided revised materials and responses for review. The applicant has revised the application to accommodate an access change, and now proposes to access the site from Sycolin Road (Route 643) via an off-site private roadway within a private access easement rather than from Gant Lane (Route 652). Because it was determined by the Loudoun County Zoning Administrator that an access easement across the TR-10 property to Sycolin Road (Route 643) would not be permitted, the application has also been revised to rezone an additional 10.5 acres (now approximately 101 acres total). The increase in acreage accommodates the proposed new private access road within the PD-GI Zone. A vicinity map and concept plan are provided as *Attachment 1*.

This review is based on materials received from the Department of Planning on January 5, 2010 including (1) a revised statement of justification dated December 30, 2009 from Walsh Colucci Lubely Emrich & Walsh, (2) draft revised proffers dated December 30, 2009, and (3) a revised concept plan dated December 30, 2009 from William H. Gordon Associates, Inc.

Transportation Comments

Discussed below are new OTS comments regarding the revised application:

1. The applicant now proposes to access the site via a private roadway off of Sycolin Road (Route 643), approximately 200 feet north of the Dulles Greenway bridge crossing, and no

longer proposes to utilize Gant Lane (Route 652) for access. Considering the condition of Gant Lane (Route 652), OTS prefers this proposal to access this site via Sycolin Road (Route 643). The Applicant needs to coordinate this access with representatives of the Loudoun Water-Water Treatment Plant (SPEX 2009-0021, CMPT 2009-0007) application. The Applicant should also indicate how this access relates to the Stonewall Secure Business Park applications (ZMAP 2009-0005, SPEX 2009-0009 & CMPT 2009-0001). If this Sycolin Road (Route 643) access is approved, the issues regarding the improvement of Gant Lane (Route 652) raised in the November 20, 2009 OTS referral would no longer be relevant provided that no site access to Gant Lane (Route 652) is permitted. OTS notes that a new traffic analysis is needed to evaluate the traffic impacts of this proposed entrance on Sycolin Road (Route 643). OTS staff is available to meet with the applicant's traffic consultant to determine the scope for this study.

2. The 2001 Revised CTP calls for Sycolin Road (Route 643) to be improved to a four-lane divided (U4M) section. The proposed entrance onto Sycolin Road (Route 643) needs to be constructed to VDOT standards/requirements including locating the proposed entrance relative to future median breaks, the provision of turn lanes and the demonstration of adequate sight distance. Additionally, it is noted that the 2001 Revised CTP depicts a future grade-separated interchange on the Dulles Greenway at the westernmost crossing of Sycolin Road (Route 643) just south of the proposed site entrance location (see *Attachment 2*); the proposed site entrance also needs to be coordinated with this planned feature. The Applicant should coordinate the access road location with TRIP II (owners of the Dulles Greenway), and acknowledge that the access road to the site may need to be relocated at some point in the future to accommodate this yet-to-be-designed interchange.
3. A review of the adopted 2001 Revised CTP alignment for Cochran Mill Road (Route 653) shows that the planned realignment will traverse the northwest portion of the site (see *Attachment 2*). In draft proffer II.5, the Applicant has agreed to accommodate this alignment by providing a reservation for the future dedication of a 70-foot-wide planned road in conformance with the CTP. This includes a 21-year time period in which the County may request the dedication to occur. OTS agrees with the proposed reservation. However, the Applicant needs to clarify that all necessary construction-related easements will also be provided, including drainage, utility and grading easements where needed.
4. In response to the issue raised in the November 20, 2009 OTS referral regarding recommended documentation for the proposed site trip generation, the Applicant has provided adequate documentation as shown in *Attachment 3*.

Conclusion

The Office of Transportation Services has no recommendation at this time. OTS will offer a recommendation once the Applicant provides a response to the comments in this referral and the requested traffic analysis is completed and reviewed.

ZMAP 2009-0005, SPEX 2009-0009 & CMPT 2009-0001
Green Energy Partners/Stonewall (GEP/S) Hybrid Energy Park
OTS Third Referral
February 9, 2010

ATTACHMENTS

1. Site Vicinity Map/Concept Plan
2. Adopted 2001 CTP Map showing the Planned Interchange at the Dulles Greenway and Sycolin Road (Route 643) and the realignment of Cochran Mill Road (Route 653)
3. Trip Generation Calculations

cc: Andrew Beacher, Assistant Director, OTS
Lou Mosurak, Senior Coordinator, OTS



December 16, 2009

Via Electronic and US Mail

Mr. George R. Phillips
County of Loudoun
Office of Transportation Services
1 Harrison Street, S.E., 4th Floor
Leesburg, VA 20177-7000



Re: **Green Energy Partners/Stonewall Hybrid Energy Park**
ZMAP 2009-0005/SPEX 20009-0009
Trip Generation Calculations
Loudoun County, Virginia
PHR+A F- 16206-2-0

CORPORATE:

Chantilly

VIRGINIA OFFICES:

Chantilly

Charlottesville

Fredricksburg

Harrisonburg

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Newport News

Norfolk

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LABORATORIES:

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Dear Mr. Phillips:

As discussed with Mr. John Callow at your Wednesday, December 2, 2009 meeting, Patton Harris Rust & Associates, (PHR+A) had developed the trip generation for the proposed site based on the estimated employee activities, engineering judgment, and anticipated site activities for similar facilities. The September 3, 2009 memorandum outlined 3 shifts of staff (totaling 25 people) with 89 average Daily Trips. Based on comparisons to ITE and a similar facility, these trips should be conservative (or higher) than average activities for consideration of site impacts.

In comparing the estimated trip generation with average trip rates for heavy industrial, office, or industrial uses in the Institute of Transportation Engineers (ITE) Manual 8th Edition, the peak hour trips are higher than the 22 trips associated with heavy industrial uses, which is the most similar use. However, the Daily data in ITE is not consistent with the peak hour trips. The Daily trips are also higher than the application of the Daily trips if applied as light industrial uses or office uses, as shown below.

TABLE 1
HYBRID ENERGY SITE TRIP GENERATION COMPARISONS

Use	ITE Code	AM Peak (2-way)	AM Peak (2-way)	Daily Trips (VPD)
Hybrid Energy Park @ 25 employees	N/A	24	26	89
Light Industrial	110	11	11	76
Heavy Industrial	120	13	22	21
Manufacturing	140	10	9	53
Office	710	12	12	83

Source: ITE Trip Generation, 8th Edition, (Computations by PHR+A) See Table 2 of 9/3/09 report for details of in/out splits. Trips are based on average rates per employees at 25 employees

Mr. George Phillips
Hybrid Energy Plant Trip Generation
December 16, 2009
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PHR+A

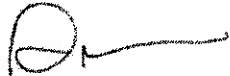
PHR+Q also contacted the Plant manager for the Tenaska site in Fluvanna County, Virginia. This energy facility, located south of Charlottesville has 28 employees working on shifts with 12 hour shifts. Typically, 16 employees are on site during the daytime hours (7:30-4:00 PM) with 3-4 persons on-site during other hours. Outside of scheduled outages twice a year, the additional traffic associated with visitors, deliveries, and vendor services are less than 10 trips per day. The employees are often on-site the entire shift, so lunch break trips outside of the plant are limited. The site is in a remote area so access and services for lunch or errands is limited.

For the Loudoun site, 25 employees would equate to 50 trips. The Loudoun site may have some lunch trips, but will also have the same security. We had estimated about 10 trips per day. The Tenaska facility has about 400-500 visitors per year. The Loudoun site visitor activities may vary, subject to operator preference. So we had assumed approximately 10-20 trips per day. Unlike many manufacturing plants, the raw materials needed to produce the power or distribute a not typically part of the plant operations, so a steady delivery truck or fuel distribution system is not via trucks. Estimating 10 trips per day provides a total trip estimate of 80-90 trips, conservatively. Finally, the outage time may have increased contractors on-site doing service work on the facility, but the work is performed during outages. The Fluvanna site has as many as 30-60 contractors on-site for service, but with limited work windows, throughout the year, it is not a typical trip generation element during the year. The plant has been open since May 2004.

Please advise if you require additional information. John will return to the office January 11, 2010.

Sincerely,

PATTON HARRIS RUST & ASSOCIATES



Douglas R. Kennedy, P.E.
Vice President, Director of Transportation Planning
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Cc: John Callow
Jordon Dimoff